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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/878,272

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7590

01/03/2005

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EXAMINER

MILIA, MARK R

ART UNIT

PAPER NUMBER

2622

DATE MAILED: 01/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/878,272

Applicant(s)

TANAKA, YOSHINORI

Examiner

Mark R. Milia

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/28/01.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Objections***

2. Claim 4 is objected to because of the following informalities: Claim fails to end with a period. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 10, 12-14, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5293469 to Outa et al. in view of U.S. Patent No. 5629752 to Kinjo et al.

Regarding claim 1, Outa discloses an image-processing apparatus comprising: a memory that stores raster data obtained by scanning graphic image (see column 3 lines 53-62), a processor connected to said memory (see Fig. 1 and column 3 line 63-column 4 line 18), wherein said processor extracts line graphics based on the raster data (see

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column 3 line 53-column 4 line 36), said processor generates vector data along the extracted line graphics (see column 3 line 63-column 4 line 36), said processor detects information concerning line widths of the extracted line graphics (see column 2 lines 22-31 and column 7 lines 32-33), and said processor extracts an enclosed area surrounded by the extracted line graphics (see column 3 line 63-column 4 line 36).

Outa does not disclose expressly wherein said processor detects information concerning a color within the extracted enclosed area.

Kinjo discloses wherein said processor detects information concerning a color within the extracted enclosed area (see column 16 line 54-column 17 line 17, column 20 line 47-column 21 line 12, column 23 lines 8-16, column 30 line 10-column 31 line 22, column 38 lines 47-65, and column 39 lines 20-35).

Outa & Kinjo are combinable because they are from the same field of endeavor, manipulation of graphic images.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of detecting a color inside of a given shape as discussed by Kinjo with the system of Outa.

The suggestion/motivation for doing so would have been provide the ability to ascertain the color inside of a graphic object as well as the color of the lines that outline the object. Ascertaining the color can be useful as discussed by Kinjo to automatically detect a human face by the distribution and amount of a certain color that is present in a particular image, which has many advantages in the area of face-recognition.

Therefore, it would have been obvious to combine Kinjo with Outa to obtain the invention as specified in claim 1.

Regarding claims 13 and 17, Outa discloses an image-processing method and program product comprising the steps of: receiving raster data obtained by scanning graphic image (see column 3 lines 53-62), extracting line graphics based on the raster data; generating vector data along the extracted line graphics (see column 3 line 63-column 4 line 18), detecting information concerning line widths of the extracted line graphics (see column 2 lines 22-66 and column 7 lines 32-33), and extracting an enclosed area surrounded by the extracted line graphics (see column 4 lines 10-36).

Outa does not disclose expressly detecting information concerning a color within the extracted enclosed area.

Kinjo discloses detecting information concerning a color within the extracted enclosed area (see column 16 line 54-column 17 line 17, column 20 line 47-column 21 line 12, column 23 lines 8-16, column 30 line 10-column 31 line 22, column 38 lines 47-65, and column 39 lines 20-35).

Outa & Kinjo are combinable because they are from the same field of endeavor, manipulation of graphic images.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of detecting a color inside of a given shape as discussed by Kinjo with the system of Outa.

The suggestion/motivation for doing so would have been provide the ability to ascertain the color inside of a graphic object as well as the color of the lines that outline

the object. Ascertaining the color can be useful as discussed by Kinjo to automatically detect a human face by the distribution and amount of a certain color that is present in a particular image, which has many advantages in the area of face-recognition.

Therefore, it would have been obvious to combine Kinjo with Outa to obtain the invention as specified in claims 13 and 17.

Regarding claims 14 and 18, Outa discloses an image-processing method and program product comprising the steps of: receiving raster data obtained by scanning graphic image (see column 3 lines 53-62), extracting line graphics based on the raster data, generating vector data along the extracted line graphics; detecting information concerning line widths and a color within the extracted line graphics (see column 3 line 63-column 4 line 36), extracting an enclosed area surrounded by the extracted line graphics (see column 4 lines 10-36), and storing said vector data, information color within the concerning the line widths and the color of the line graphics (see column 3 line 63-column 4 line 36, column 4 lines 56-61, and column 7 lines 32-33 and 47-54).

Outa does not disclose expressly detecting information concerning a color within the extracted enclosed area.

Kinjo discloses detecting information concerning a color within the extracted enclosed area (see column 16 line 54-column 17 line 17, column 20 line 47-column 21 line 12, column 23 lines 8-16, column 30 line 10-column 31 line 22, column 38 lines 47-65, and column 39 lines 20-35).

Outa & Kinjo are combinable because they are from the same field of endeavor, manipulation of graphic images.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of detecting a color inside of a given shape as discussed by Kinjo with the system of Outa.

The suggestion/motivation for doing so would have been provide the ability to ascertain the color inside of a graphic object as well as the color of the lines that outline the object. Ascertaining the color can be useful as discussed by Kinjo to automatically detect a human face by the distribution and amount of a certain color that is present in a particular image, which has many advantages in the area of face-recognition.

Therefore, it would have been obvious to combine Kinjo with Outa to obtain the invention as specified in claims 14 and 18.

Regarding claim 2, Outa and Kinjo disclose the system discussed in claim 1, and Outa further discloses a storage unit that stores said vector data and said information concerning the color within the enclosed area (see column 4 lines 56-61, reference shows that all pertinent data pertaining to the vector data is stored in memory and therefore the combination of Outa and Kinjo would store the information relating to the color within the enclosed area of the vector data).

Regarding claim 3, Outa and Kinjo disclose the system discussed in claims 1 and 2, and Outa further discloses wherein said storage unit further stores said information concerning the line widths (see column 2 lines 22-66 and column 7 lines 32-33 and 47-54).

Regarding claim 4, Outa and Kinjo disclose the system discussed in claim 1, and Kinjo further discloses wherein said processor selects multiple internal points within the

extracted enclosed area and detects the color within the extracted enclosed areas based on color information of the multiple internal points (see column 16 line 54-column 17 line 17, column 20 line 47-column 21 line 12, column 23 lines 8-16, column 30 line 10-column 31 line 22, column 38 lines 47-65, and column 39 lines 20-35).

Regarding claim 10, Outa and Kinjo disclose the system discussed in claim 1, and Outa further discloses wherein said image processing apparatus is built into a scanner (see column 3 lines 51-62, reference teaches the system of converting raster data to vector data being located in a digital copy machine which has both a scanner and printer therefore teaches the above claimed limitation).

Regarding claim 12, Outa and Kinjo disclose the system discussed in claim 1, and Outa further discloses wherein said image processing apparatus is built into a printer (see column 3 lines 51-62, reference teaches the system of converting raster data to vector data being located in a digital copy machine which has both a scanner and printer therefore teaches the above claimed limitation).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Outa and Kinjo as applied to claim 1 above, and further in view of U.S. Patent No. 6469805 to Behlok.

Outa and Kinjo do not disclose expressly wherein according to the said processor generates a histogram of the color information of the multiple internal points and executes statistical processes based on the histogram to detect color within the extracted enclosed area.



Behlok discloses wherein according to the said processor generates a histogram of the color information of the multiple internal points and executes statistical processes based on the histogram to detect color within the extracted enclosed area (see column 5 lines 36-39 and column 6 lines 46-67).

Outa, Kinjo & Behlok are combinable because they are from the same field of endeavor, manipulation of graphic images.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the use of histograms for color detection of Behlok with the system of Outa and Kinjo.

The suggestion/motivation for doing so would have been provide a more accurate color and modification detection system (see also column 4 lines 12-25 of Behlok).

Therefore, it would have been obvious to combine Behlok with Outa and Kinjo to obtain the invention as specified in claim 5.

Claims 6-8, 11, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Outa and Kinjo as applied to claims 1 and 14 above, and further in view of Japanese Patent Document No. 06-195421 to Arakawa as cited on Information Disclosure Statement dated September 28, 2001. Reference is will be made to computer translation which is attached.

Regarding claim 6, Outa and Kinjo do not disclose expressly wherein said processor further detects information concerning a color of line graphics.

Arakawa discloses expressly wherein said processor further detects information concerning a color of line graphics (see paragraphs [0010], [0017]-[0018], and [0022]).

Regarding claim 7, Outa and Kinjo do not disclose expressly wherein said processor further detects concerning a color of line graphic, and information said storage unit further stores information concerning the color of said line graphics.

Arakawa discloses wherein said processor further detects concerning a color of line graphic, and information said storage unit further stores information concerning the color of said line graphics (see paragraphs [0010], [0017]-[0018], and [0022]).

Regarding claims 8 and 15, Outa and Kinjo do not disclose expressly wherein said vector data are generated by converting the line graphics into core line graphics.

Arakawa discloses wherein said vector data are generated by converting the line graphics into core line graphics (see Drawings 5 and 7).

Regarding claim 11, Outa and Kinjo do not disclose expressly wherein said image processing apparatus is built into a server that provides image-processing services.

Arakawa discloses wherein said image processing apparatus is built into a server that provides image-processing services (see Drawing 1 and paragraph [0014]).

Outa, Kinjo & Arakawa are combinable because they are from the same field of endeavor, manipulation of graphic images.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the detection of a color of a line graphic of Arakawa with the system of Outa and Kinjo.

The suggestion/motivation for doing so would have been provide complete properties of the line graphics to allow the color inside and the color of the border-line graphics to be detected for accurate reproduction.

Therefore, it would have been obvious to combine Arakawa with Outa and Kinjo to obtain the invention as specified in claims 6-8, 11, and 15.

Claims 9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Outa and Kinjo as applied to claims 1 and 14 above, and further in view of U.S. Patent No. 5845304 to Iijima.

Outa and Kinjo do not disclose expressly wherein said processor compares the line widths of the line graphics with a specified threshold value and generates said vector data according to comparison results.

Iijima discloses wherein said processor compares the line widths of the line graphics with a specified threshold value and generates said vector data according to comparison results (see column 4 lines 14-36 and 52-65, column 7 lines 10-25, and column 7 line 44-column 8 line 3, reference discloses a method for determining the thickness of a line contained in a digital document by comparing the line to known values of lines that are thin, medium thickness, or thick and being able to change thickness along with color for future processing and reproduction).

Outa, Kinjo & Iijima are combinable because they are from the same field of endeavor, manipulation of graphic images.

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At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the thickness and alteration method of Iijima with the system of Oota and Kinjo.

The suggestion/motivation for doing so would have been to allow a user to alter the thickness of a line graphic to allow the image to be scaled up or down without having the line graphic become too large or too small.

Therefore, it would have been obvious to combine Iijima with Oota and Kinjo to obtain the invention as specified in claims 9 and 16.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. To further show state of the art refer to the Notice of References Cited (PTO-892).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (703) 305-1900. The examiner can normally be reached M-F 8:00am-4:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached at (703) 305-4712. The fax number for the organization where this application or proceeding is assigned is 703-872-9306.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MRM

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